

Medium voltage capacitor banks: characterization and transients generated

ABSTRACT

This review presents an analysis of the over voltage electromagnetic transient's phenomena during an energizing and de-energizing of capacitor banks. The investigation has been extended to non-linear loads and distributed power systems in medium voltage electrical system. In addition, sensitive analyses of characterization impact factors have been discussed. Effects of switching transients of the capacitor bank on the regression of power quality in distribution systems have been analyzed and the results are presented in detail. The outcome of this study provides practically significant information for the power engineers that design electrical networks for medium voltage distribution systems.

Keyword: Capacitor banks; Transients' overvoltage; Electrical grid switching